



9 Appendix A - Build Sheets & Test Cards

9.1 Sample Completed Build Sheet

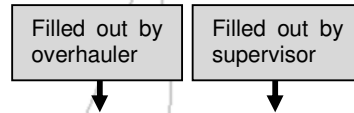


Table 2 – Build Sheet A

No.	Details	Initials	Checked By	Date
A1	Inspect for Burrs, Oil Holes, Chamfers; Clean Crankshaft, Conrods and Propeller Mount Plate	XYZ		1-1-13
A2	Inspect Oil Holes and insert Welch Plugs	XYZ		1-1-13
A3	Measure Crankshaft (refer to Goods Inwards Inspection Sheet)	XYZ		1-1-13
A4	Inspect and measure Propeller Mount Flange	XYZ		1-1-13
A5	Inspect and measure Conrods (refer to Goods Inwards Inspection Sheet)	XYZ		1-1-13
A6	Temporarily Mount Propeller Mount Flange to Crankshaft and bolt to stand	XYZ		1-1-13
A7	Fit the Conrods to the Crankshaft; Use Loctite 620 on the bolts and torque to 18 ft.lbs	XYZ		1-1-13
A8	Stage A - Stage Inspection of Assembly	XYZ	DPS	1-1-13

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: XYZ Date: 1-1-13 for Jabiru Aircraft Pty Ltd Certificate of Approval

Filled out by overhauler

MPI Release Note No. 1234578910



9.2 2200 Top End Overhaul Booklet

9.2.1 Job Traveller

Table 3 – Job Traveller

Jabiru Engine – Job Traveller		Form: JABENGJT-1
<input type="checkbox"/> CASA VH Registration	<input type="checkbox"/> RA-Aus or Other Registration	
Job Number:	Order / Invoice No:	
Engine Model: <input type="checkbox"/> -2200 <input type="checkbox"/> -3300 <input type="checkbox"/> -5100	Engine Serial Number:	
Date Received:	Owner:	
TSO:		
Work to be done (<i>iaw Jabiru Approved Data & certified for in the applicable section of the engine overhaul booklet</i>):		
<input type="checkbox"/> - Trade-In (Full Overhaul)	<input type="checkbox"/> - Full overhaul & return to owner	
<input type="checkbox"/> - Top End Inspection	<input type="checkbox"/> - Bulk Strip	
<input type="checkbox"/> - Maintenance (RA-Aus only)	<input type="checkbox"/> - Other:	
Records to be filed:		
<input type="checkbox"/> - Copy of ARC	<input type="checkbox"/> - Jabiru Engine Job Traveller	
<input type="checkbox"/> - Copy of all job sheets	<input type="checkbox"/> - Copy of specialist inspection reports - MPI etc.	
<input type="checkbox"/> - Report to owner	<input type="checkbox"/> - Copy of log book entry	
<input type="checkbox"/> - Job book, completed.		
Parts Shipped To Jabiru With Engine:		
<input type="checkbox"/> - Exhaust extractors	<input type="checkbox"/> - Muffler	
<input type="checkbox"/> - Starter Motor	<input type="checkbox"/> - Oil Cooler	
Use:		
<input type="checkbox"/> - School – mainly circuits	<input type="checkbox"/> - School – mainly cross-country	
<input type="checkbox"/> - School – even mix of circuits and cross-country	<input type="checkbox"/> - Private	
<input type="checkbox"/> - Unknown		
Reason for Overhaul:		
<input type="checkbox"/> -Time Expired	<input type="checkbox"/> -Update Spec	
<input type="checkbox"/> -Other: _____		
Since manufacture or its last overhaul has the engine had any of the following::		
A prop strike or other accident? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Poor cylinder leak-downs?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High, low or fluctuating oil pressure? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Major work (i.e. top end overhaul)	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High oil temperature? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Been hard to start when hot?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High cylinder head temperatures? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Been hard to start when cold?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
Been using a Jabiru or Sensenich Prop? <input type="checkbox"/> -Yes <input type="checkbox"/> -No		
If the engine has had major work, please give a quick description of what was done and who carried it out:		
Shipping Details:		
Parts to be shipped to customer with engine:	<input type="checkbox"/> -Exhaust extractors	<input type="checkbox"/> -Muffler
	<input type="checkbox"/> -Starter Motor	<input type="checkbox"/> -Oil Cooler
Overhauled by:	<input type="checkbox"/> -Gordon & Jenny Tate <input type="checkbox"/> -Jabiru; _____	
<input type="checkbox"/> - INHIBITED		
Date:	Signed by:	



9.2.2 Engine Details

Engine Serial #: 22 _____

Date: _____

9.2.3 Top End Subassembly A Build Sheet – Conrods

Table 4 – Build Sheet A

No.	Details	Initials	Checked By	Date
A1	Clean Conrods			
A2	Inspect and measure Conrods			
A3	Fit the Conrods to the Crankshaft; Use Loctite 620 on the bolts and torque to 18 ft.lbs			
A4	Stage A - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

MPI Release Note No.

9.2.4 Top End Subassembly C Build Sheet – Pistons, Cylinders and Cylinder Heads

Table 5 – Build Sheet C

No.	Details	Initials	Checked By	Date
C1	Clean and deburr all parts			
C2	Record all measurements			
C3	Install pushrod tube 'O' Rings, springs, washers and circlips			
C4	Check valve seats, fit spring retainers, install valves			
C5	Complete rocker shafts, posts and rocker assemblies			
C6	Fit cylinder base 'O' rings			
C7	Measure and fit front circlip			
C8	Check ring end gaps, fit rings to pistons			
C9	Fit cylinders to heads. Torque: 12 ft/lbs / 24 ft.lbs			
C10	Install piston assembly to cylinder just clear of the oil ring			
C11	Stage C - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.2.5 Top End Subassembly E Build Sheet – Starter Motor

Table 6 – Build Sheet E

No.	Details	Initials	Checked By	Date
E1	Fit new bushes and bearings to starter motor & bendix gear assembly. Fit new brushes to motor & re-assemble with Loctite 243 (if needed)			
E2	Stage E - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

9.2.6 Top End Subassembly F Build Sheet – Gear Case

Table 7 – Build Sheet F

No.	Details	Initials	Checked By	Date
F1	Deburr, clean and inspect all of the gears			
F2	Measure the shaft post internal diameters and the distributor shaft diameters			
F3	Using loctite 515 fit the shaft posts to the gear housing			
F4	Fit the distributor shaft seals and rear crankshaft seal			
F5	Fit shafts to gears			
F6	Fit the distributor shafts and gears to the gear housing			
F7	Check End Clearance of Distributor Shaft to Case Flange			
F8	Stage F - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.2.7 Top End Subassembly G – Fuel Pump and Carburettor

Table 8 – Build Sheet G

No.	Check	Size	Initials	Checked By	Date
G1	Main Jet				
G2	Needle Jet				
G3	Idle Jet				
G4	Needle 4A138A0D-1				
G5	Float seat ___ mm dia				
G6	Gravity Feed Valve 47-969				
G7	Air Bleed Ø1.6mm				
G8	Idle Mixture Screw Out 1 Turn				
G9	Choke Jet Ø1.2mm				
G10	Inspect fuel pump				
G11	Stage G - Stage Inspection of Assembly				

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

9.2.8 Top End Subassembly H – Final Assembly

Table 9 – Build Sheet H

No.	Details	Initials	Checked By	Date
H1	Place all through bolts in crankcase for cylinder bases			
H2	Fit piston and cylinder Assemblies. Check circlips			
H3	Stage H1 - Stage Inspection of Assembly			
H4	Tension the cylinder base studs/bolts			
H5	Fit pushrods and valve gear. Set gap to 0.10"			
H6	Fit sump and induction tubes			
H7	Fit Carburettor assembly			
H8	Fit fuel pump			
H9	Fit exhaust system			
H10	Stage H2 - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.2.9 Top End Jabiru 2200 – Engine Post Run Procedure – Stage J

Table 10 – Post Run Inspection

No.	Details	Initials	Checked By	Date															
J1	Heads re-torqued to 24 ft.lbs. Valves adjusted																		
J2	Check induction/exhaust bolts																		
J3	Any changes to be made																		
J4	Rerun, check for oil leaks and/or any modifications made (oil pressure/leaks etc)																		
J5	Check charging rate of alternator Volts: _____																		
J6	Leak Down Test Results:																		
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>Cyl 1</td> <td></td> <td>Cyl 2</td> <td></td> <td>Cyl 3</td> <td></td> <td>Cyl 4</td> <td></td> </tr> <tr> <td></td> <td>80</td> <td></td> <td>80</td> <td></td> <td>80</td> <td></td> <td>80</td> </tr> </table>	Cyl 1		Cyl 2		Cyl 3		Cyl 4			80		80		80		80		
Cyl 1		Cyl 2		Cyl 3		Cyl 4													
	80		80		80		80												
J7	Check all paper work																		
J8	Drain fuel/oil. Prepare for shipment, inhibited and sealed																		
Stage J - Post Engine Run Procedure Completed																			

I hereby certify that the above Post Run Procedure has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.2.10 Top End Jabiru 2200 Parts Measure and Clearance Record Sheet

Table 11 – Measure & Clearance Record Sheet

Engine No.			Date:		
Crankshaft	P/No.	Batch:	Item:	Comments	
Crank Big Ends	1	2	3	4	
Conrod Big Ends	1	2	3	4	
Clearances	1	2	3	4	

Head 1	P/No.	Batch:	Item:	Comments	
Head 2	P/No.	Batch:	Item:	Comments	
Head 3	P/No.	Batch:	Item:	Comments	
Head 4	P/No.	Batch:	Item:	Comments	
In. Valve Guides	1	2	3	4	
Ex. Valve Guides	1	2	3	4	
In. Valves	1	2	3	4	
Ex. Valves	1	2	3	4	
In. Clearances	1	2	3	4	
Ex. Clearances	1	2	3	4	

Cylinder Barrel 1	P/No.	Batch:	Item:	Comments	
Cylinder Barrel 2	P/No.	Batch:	Item:	Comments	
Cylinder Barrel 3	P/No.	Batch:	Item:	Comments	
Cylinder Barrel 4	P/No.	Batch:	Item:	Comments	
Cylinder Barrel 1	Bore:	Length:			
Cylinder Barrel 2	Bore:	Length:			
Cylinder Barrel 3	Bore:	Length:			
Cylinder Barrel 4	Bore:	Length:			
Piston Diameters:	1	2	3	4	
Clearance	1	2	3	4	

Ring Gap Top	1	2	3	4	
Ring Gap Bottom	1	2	3	4	

Comments: _____

I hereby certify that the above parts have been measured, engraved & installed as recorded.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.2.11 Top End Summary of Parts Used

- Note: Refer to lists in Sections 5.1 and 5.2 for parts which MUST be replaced at overhaul.

Table 12 – Summary of Parts Used

ENGINE NO:			DATE:		
<input type="checkbox"/> Bulk Strip	<input type="checkbox"/> Overhaul		<input type="checkbox"/> Hydraulic		
<input type="checkbox"/> Maintenance	<input type="checkbox"/> Top End Overhaul		<input type="checkbox"/> Solid Lifter		
	NEW	ORIGINAL		NEW	ORIGINAL
CRANKCASE	<input type="checkbox"/>	<input type="checkbox"/>	HEADS	<input type="checkbox"/>	<input type="checkbox"/>
Main Bearings	<input type="checkbox"/>	<input type="checkbox"/>	Rockers	<input type="checkbox"/>	<input type="checkbox"/>
Through Bolts	<input type="checkbox"/>	<input type="checkbox"/>	Shafts	<input type="checkbox"/>	<input type="checkbox"/>
Engine Mount Plate	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
Pick Up Stainer	<input type="checkbox"/>	<input type="checkbox"/>	Collets	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	Valve	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pressure Sender	<input type="checkbox"/>	<input type="checkbox"/>	Springs	<input type="checkbox"/>	<input type="checkbox"/>
Oil Cooler Fitting	<input type="checkbox"/>	<input type="checkbox"/>	Adjustors	<input type="checkbox"/>	<input type="checkbox"/>
Valve Lifters	<input type="checkbox"/>	<input type="checkbox"/>	Solid Pushrods	<input type="checkbox"/>	<input type="checkbox"/>
Tacho Pick-up	<input type="checkbox"/>	<input type="checkbox"/>	Pushrod Tubes	<input type="checkbox"/>	<input type="checkbox"/>
Oil Feed To Heads	<input type="checkbox"/>	<input type="checkbox"/>	Rocker Covers	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pick-up	<input type="checkbox"/>	<input type="checkbox"/>	Valve Guides	<input type="checkbox"/>	<input type="checkbox"/>
O Rings	<input type="checkbox"/>	<input type="checkbox"/>	Rubber T's	<input type="checkbox"/>	<input type="checkbox"/>
CRANKSHAFT	<input type="checkbox"/>	<input type="checkbox"/>	Lifter	<input type="checkbox"/>	<input type="checkbox"/>
Conrods	<input type="checkbox"/>	<input type="checkbox"/>	CYLINDERS	<input type="checkbox"/>	<input type="checkbox"/>
Conrod Bearings	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
Prop Drive	<input type="checkbox"/>	<input type="checkbox"/>	SUMP	<input type="checkbox"/>	<input type="checkbox"/>
Front Seal	<input type="checkbox"/>	<input type="checkbox"/>	Long Temp Sender	<input type="checkbox"/>	<input type="checkbox"/>
Crank Gear	<input type="checkbox"/>	<input type="checkbox"/>	Swept Plenum Chamber	<input type="checkbox"/>	<input type="checkbox"/>
CAM	<input type="checkbox"/>	<input type="checkbox"/>	Induction Pipes	<input type="checkbox"/>	<input type="checkbox"/>
CAM Gear Outer	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
CAM Gear Inner	<input type="checkbox"/>	<input type="checkbox"/>	Induction Gaskets	<input type="checkbox"/>	<input type="checkbox"/>
FLYWHEEL	<input type="checkbox"/>	<input type="checkbox"/>	Heat Shield	<input type="checkbox"/>	<input type="checkbox"/>
Magnets (ignition)	<input type="checkbox"/>	<input type="checkbox"/>	Induction Hose Joiners	<input type="checkbox"/>	<input type="checkbox"/>
Vac Drive Plate	<input type="checkbox"/>	<input type="checkbox"/>	EXHAUST PIPES	<input type="checkbox"/>	<input type="checkbox"/>
Ring Gear	<input type="checkbox"/>	<input type="checkbox"/>	Ex-Gaskets Type	<input type="checkbox"/>	<input type="checkbox"/>
ALTERNATOR	<input type="checkbox"/>	<input type="checkbox"/>	Bevel Type	<input type="checkbox"/>	<input type="checkbox"/>
Magnet Ring	<input type="checkbox"/>	<input type="checkbox"/>	OIL COOLER	<input type="checkbox"/>	<input type="checkbox"/>
Stator	<input type="checkbox"/>	<input type="checkbox"/>	Oil Cooler Adaptor	<input type="checkbox"/>	<input type="checkbox"/>
PISTONS	<input type="checkbox"/>	<input type="checkbox"/>	Oil Hoses	<input type="checkbox"/>	<input type="checkbox"/>
Rings	<input type="checkbox"/>	<input type="checkbox"/>	FUEL PUMP	<input type="checkbox"/>	<input type="checkbox"/>
Gudgeons / Circlips	<input type="checkbox"/>	<input type="checkbox"/>	Push Rod	<input type="checkbox"/>	<input type="checkbox"/>
IGNITION HARNESS	<input type="checkbox"/>	<input type="checkbox"/>	Gaskets / Spacer	<input type="checkbox"/>	<input type="checkbox"/>
Plugs	<input type="checkbox"/>	<input type="checkbox"/>	STARTER MOTOR	<input type="checkbox"/>	<input type="checkbox"/>
Rotors	<input type="checkbox"/>	<input type="checkbox"/>	Clutch Assy	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Caps	<input type="checkbox"/>	<input type="checkbox"/>	OIL PUMP	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Shafts	<input type="checkbox"/>	<input type="checkbox"/>	Housing	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Gears	<input type="checkbox"/>	<input type="checkbox"/>	Spacer Plate	<input type="checkbox"/>	<input type="checkbox"/>
Seals Dizzy	<input type="checkbox"/>	<input type="checkbox"/>	Gears	<input type="checkbox"/>	<input type="checkbox"/>
Rear Seals	<input type="checkbox"/>	<input type="checkbox"/>	CARBY	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Case	<input type="checkbox"/>	<input type="checkbox"/>	Fuel Line	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Posts	<input type="checkbox"/>	<input type="checkbox"/>	Mount	<input type="checkbox"/>	<input type="checkbox"/>
Coils	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



9.2.12 Top End Ground Run-In Procedure

Table 13 – Ground Run-In Procedure

Time	Duration	Condition	RPM	RPM	CHT 4/6	Oil Temp	Oil Pressure
	3	Start and Idle	1400				
	10	Hot Idle Check 1	Idle				
	30 sec / 1	Take-Off Power	Full / 2000				
	1 / 2	75% Power	2800 / 2000				
	1 / 2	Take-Off	Full / 2000				
	15 sec / 2	Full	Full / 2000				
	2	75% Power	2800				
	1	Cooling Run	2000				
	2	75% Power	2800				
	3	Cooling Run	2000				
	2 / 1 / 2	2800 / 2000 / 2800					
	2 / 2	2500 / 2800					
	2 / 3	2500 / 3000					
	2 / 3	2500 / Full					
	3	Cooling Run	1200				
	10	Hot Idle Check 2	Idle				

O.A.T. _____ °C		Use: Aero Shell 100/Exxon 100/BP Aviation Oil 100 2200 2.2 Litres or 2 Litres + Fill Oil Filter 3300 3.4 Litres or 3.2 Litres + Fill Oil Filter				
Alternator: _____ V at 2800 RPM						
Idle Comments:						
Top End (RPM) Comments:		Overall Comments:				
Any Changes / Adjustments Made During Run:						
Post Run-In Checks: <input type="checkbox"/> Check for Oil Leaks <input type="checkbox"/> Re-Torque Cylinder Heads <input type="checkbox"/> Adjust Valves (solid Lifter) <input type="checkbox"/> Check Induction / Exhaust						
<input type="checkbox"/> Post-Run Leak-Down:	Cyl 1 <table border="1"><tr><td>80</td></tr></table> Cyl 2 <table border="1"><tr><td>80</td></tr></table> Cyl 3 <table border="1"><tr><td>80</td></tr></table> Cyl 4 <table border="1"><tr><td>80</td></tr></table>	80	80	80	80	
80						
80						
80						
80						
<input type="checkbox"/> Drain Oil & Inhibit						

I hereby certify that this engine has been run in accordance with Jabiru requirements and is fit for use.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.3 2200 Overhaul Booklet

9.3.1 Job Traveller

Table 14 – Job Traveller

Jabiru Engine – Job Traveller		Form: JABENGJT-1
<input type="checkbox"/> CASA VH Registration	<input type="checkbox"/> RA-Aus or Other Registration	
Job Number:	Order / Invoice No:	
Engine Model: <input type="checkbox"/> -2200 <input type="checkbox"/> -3300 <input type="checkbox"/> -5100	Engine Serial Number:	
Date Received:	Owner:	
TSO:		
Work to be done (<i>iaw Jabiru Approved Data & certified for in the applicable section of the engine overhaul booklet</i>):		
<input type="checkbox"/> - Trade-In (Full Overhaul)	<input type="checkbox"/> - Full overhaul & return to owner	
<input type="checkbox"/> - Top End Inspection	<input type="checkbox"/> - Bulk Strip	
<input type="checkbox"/> - Maintenance (RA-Aus only)	<input type="checkbox"/> - Other:	
Records to be filed:		
<input type="checkbox"/> - Copy of ARC	<input type="checkbox"/> - Jabiru Engine Job Traveller	
<input type="checkbox"/> - Copy of all job sheets	<input type="checkbox"/> - Copy of specialist inspection reports - MPI etc.	
<input type="checkbox"/> - Report to owner	<input type="checkbox"/> - Copy of log book entry	
<input type="checkbox"/> - Job book, completed.		
Parts Shipped To Jabiru With Engine:		
<input type="checkbox"/> - Exhaust extractors	<input type="checkbox"/> - Muffler	
<input type="checkbox"/> - Starter Motor	<input type="checkbox"/> - Oil Cooler	
Use:		
<input type="checkbox"/> - School – mainly circuits	<input type="checkbox"/> - School – mainly cross-country	
<input type="checkbox"/> - School – even mix of circuits and cross-country	<input type="checkbox"/> - Private	
<input type="checkbox"/> - Unknown		
Reason for Overhaul:		
<input type="checkbox"/> -Time Expired	<input type="checkbox"/> -Update Spec	
<input type="checkbox"/> -Other: _____		
Since manufacture or its last overhaul has the engine had any of the following::		
A prop strike or other accident? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Poor cylinder leak-downs?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High, low or fluctuating oil pressure? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Major work (i.e. top end overhaul)	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High oil temperature? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Been hard to start when hot?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High cylinder head temperatures? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Been hard to start when cold?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
Been using a Jabiru or Sensenich Prop? <input type="checkbox"/> -Yes <input type="checkbox"/> -No		
If the engine has had major work, please give a quick description of what was done and who carried it out:		
Shipping Details:		
Parts to be shipped to customer with engine: <input type="checkbox"/> -Exhaust extractors <input type="checkbox"/> -Muffler		
<input type="checkbox"/> -Starter Motor <input type="checkbox"/> -Oil Cooler		
Overhauled by:	<input type="checkbox"/> -Gordon & Jenny Tate <input type="checkbox"/> -Jabiru; _____	
<input type="checkbox"/> - INHIBITED		
		Date: _____
		Signed by: _____



9.3.2 Engine Details

Engine Serial #: 22 _____

Date: _____

9.3.3 Subassembly A Build Sheet – Crankshaft, Propeller Mount Flange and Conrods

Table 15 – Build Sheet A

No.	Details	Initials	Checked By	Date
A1	Inspect for Burrs, Oil Holes, Chamfers; Clean Crankshaft, Conrods and Propeller Mount Plate			
A2	Inspect Oil Holes and insert Welch Plugs			
A3	Measure Crankshaft (refer to Goods Inwards Inspection Sheet)			
A4	Inspect and measure Propeller Mount Flange			
A5	Inspect and measure Conrods (refer to Goods Inwards Inspection Sheet)			
A6	Temporarily Mount Propeller Mount Flange to Crankshaft and bolt to stand			
A7	Fit the Conrods to the Crankshaft; Use Loctite 620 on the bolts and torque to 18 ft.lbs			
A8	Stage A - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

MPI Release Note No.



9.3.4 Subassembly B Build Sheet – Crankcase and Camshaft Assembly

Table 16 – Build Sheet B

No.	Details	Initials	Checked By	Date
B1	Inspect case, deburr, clean, check oil holes			
B2	Fit inner stud "O" rings			
B3	Fit all studs			
B4	Fit outer oil suction welch plugs			
B5	Fit oil relief valve, oil pressure sender and pressure switch			
B6	Fit bearing shells (12)			
B7	Blue surfaces; Assemble and torque to 30 ft.lbs			
B8	Measure main tunnel and camshaft bearings			
B9	Disassemble; Measure Cam Follower Bores			
B10	Fit Lifters			
B11	Check Camshaft End Float			
B12	Check Crankshaft End Float			
B13	Stage B - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.3.5 Subassembly C Build Sheet – Pistons, Cylinders and Cylinder Heads

Table 17 – Build Sheet C

No.	Details	Initials	Checked By	Date
C1	Clean and deburr all parts			
C2	Record all measurements			
C3	Install pushrod tube 'O' Rings, springs, washers and circlips			
C4	Check valve seats, fit spring retainers, install valves			
C5	Complete rocker shafts, posts and rocker assemblies			
C6	Fit cylinder base 'O' rings			
C7	Measure and fit front circlip			
C8	Check ring end gaps, fit rings to pistons			
C9	Fit cylinders to heads. Torque: 12 ft/lbs / 24 ft.lbs			
C10	Install piston assembly to cylinder just clear of the oil ring			
C11	Stage C - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

9.3.6 Subassembly D Build Sheet – Sump

Table 18 – Build Sheet D

No.	Details	Initials	Checked By	Date
D1	Clean and inspect the sump.			
D2	Clean out blind threads using a suitable sized tap			
D3	Ensure all seals and gaskets on plugs and terminals are serviceable.			
D4	Stage D - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.3.7 Subassembly E Build Sheet – Flywheel, Ignition Coils, Starter Motor And Alternator

Table 19 – Build Sheet E

No.	Details	Initials	Checked By	Date
E1	Clean and de-burr starter ring gear & bendix gears.			
E2	Assemble magnets, pole plates, tacho tags and alternator rotor to flywheel			
E3	Verify magnet strength and polarity correct			
E4	Fit new bushes and bearings to starter motor & bendix gear assembly. Fit new brushes to motor & re-assemble with Loctite 243 (if needed)			
E5	Stage E - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

9.3.8 Subassembly F Build Sheet – Gear Case

Table 20 – Build Sheet F

No.	Details	Initials	Checked By	Date
F1	Deburr, clean and inspect all of the gears			
F2	Measure the shaft post internal diameters and the distributor shaft diameters			
F3	Using loctite 515 fit the shaft posts to the gear housing			
F4	Fit the distributor shaft seals and rear crankshaft seal			
F5	Fit shafts to gears			
F6	Fit the distributor shafts and gears to the gear housing			
F7	Check End Clearance of Distributor Shaft to Case Flange			
F8	Stage F - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



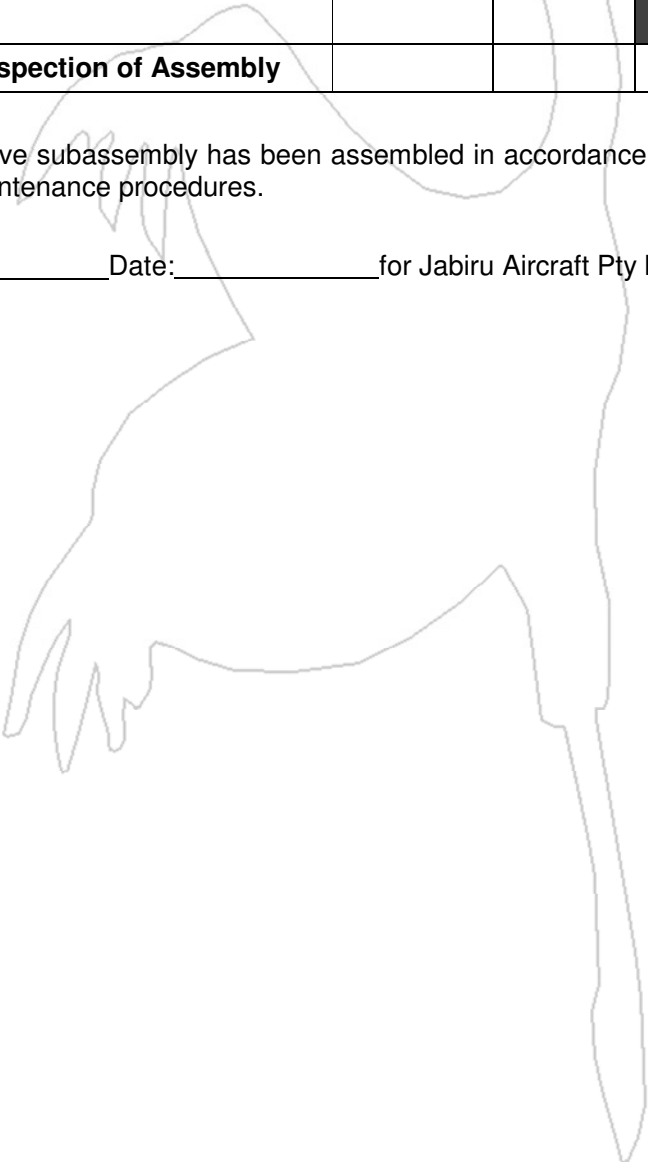
9.3.9 Subassembly G – Fuel Pump and Carburettor

Table 21 – Build Sheet G

No.	Check	Size	Initials	Checked By	Date
G1	Main Jet				
G2	Needle Jet				
G3	Idle Jet				
G4	Needle 4A138A0D-1				
G5	Float seat ___ mm dia				
G6	Gravity Feed Valve 47-969				
G7	Air Bleed Ø1.6mm				
G8	Idle Mixture Screw Out 1 Turn				
G9	Choke Jet Ø1.2mm				
G10	Stage G - Stage Inspection of Assembly				

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd





9.3.10 Subassembly H – Final Assembly

Table 22 – Build Sheet H

No.	Details	Initials	Checked By	Date
H1	Apply Loctite 515 to crankcase halves; lubricate where necessary			
H2	Locate camshaft in crankcase half			
H3	Locate 2 crankcase halves over crankshaft			
H4	Stage H1 - Stage Inspection of Assembly			
H5	Tension front (2) and rear (2)			
H6	Place all through bolts in crankcase for cylinder bases			
H7	Fit piston and cylinder Assemblies. Check circlips			
H8	Stage H2 - Stage Inspection of Assembly			
H9	Tension the cylinder base studs/bolts			
H10	Fit pushrods and valve gear. Set gap to 0.10"			
H11	Fit sump and induction tubes			
H12	Check camshaft timing			
H13	Fit engine mount plate and gearbox housing			
H14	Fit flywheel, alternator mount plate and ignition coils			
H15	Fit Carburettor assembly			
H16	Fit fuel pump			
H17	Fit oil pump assembly			
H18	Fit front seal and propeller flange Torque 30 ft.lbs/Lockwire then std flange lockwire not required			
H19	Fit exhaust system			
H20	Stage H3 - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.3.11 Jabiru 2200 – Engine Post Run Procedure – Stage J

Table 23 – Post Run Inspection

No.	Details	Initials	Checked By	Date															
J1	Heads re-torqued to 24 ft.lbs. Valves adjusted																		
J2	Check induction/exhaust bolts																		
J3	Any changes to be made																		
J4	Rerun, check for oil leaks and/or any modifications made (oil pressure/leaks etc)																		
J5	Check charging rate of alternator Volts: _____																		
J6	Leak Down Test Results:																		
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>Cyl 1</td> <td></td> <td>Cyl 2</td> <td></td> <td>Cyl 3</td> <td></td> <td>Cyl 4</td> <td></td> </tr> <tr> <td></td> <td>80</td> <td></td> <td>80</td> <td></td> <td>80</td> <td></td> <td>80</td> </tr> </table>	Cyl 1		Cyl 2		Cyl 3		Cyl 4			80		80		80		80		
Cyl 1		Cyl 2		Cyl 3		Cyl 4													
	80		80		80		80												
J7	Check all paper work																		
J8	Drain fuel/oil. Prepare for shipment, inhibited and sealed																		
J9	Stage J - Post Engine Run Procedure Completed																		

I hereby certify that the above Post Run Procedure has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.3.12 Jabiru 2200 Parts Measure and Clearance Record Sheet

Table 24 – Measure & Clearance Record Sheet

Engine No.			Date:			
Crankshaft	P/No.	Batch:	Item:	Comments		
Crank Mains:	1	2	3	4	5	6
Crankcase Left	P/No.	Batch:	Item:	Comments		
Crankcase Right	P/No.	Batch:	Item:	Comments		
Crankcase Assy Main Tunnels	1	2	3	4	5	6
Clearances	1	2	3	4	5	6

Crankshaft	P/No.	Batch:	Item:	Comments		
Crank Big Ends	1	2	3	4		
Conrod Big Ends	1	2	3	4		
Clearances	1	2	3	4		

Camshaft	P/No.	Batch:	Item:	Comments		
Camshaft Journals	1	2	3	4	5	6
Camshaft Tunnel	1	2	3	4	5	6
Clearances	1	2	3	4	5	6

Head 1	P/No.	Batch:	Item:	Comments		
Head 2	P/No.	Batch:	Item:	Comments		
Head 3	P/No.	Batch:	Item:	Comments		
Head 4	P/No.	Batch:	Item:	Comments		
In. Valve Guides	1	2	3	4		
Ex. Valve Guides	1	2	3	4		
In. Valves	1	2	3	4		
Ex. Valves	1	2	3	4		
In. Clearances	1	2	3	4		
Ex. Clearances	1	2	3	4		

Cylinder Barrel 1	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 2	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 3	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 4	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 1	Bore:	Length:				
Cylinder Barrel 2	Bore:	Length:				
Cylinder Barrel 3	Bore:	Length:				
Cylinder Barrel 4	Bore:	Length:				
Piston Diameters:	1	2	3	4		
Clearance	1	2	3	4		

Ring Gap Top	1	2	3	4		
Ring Gap Bottom	1	2	3	4		

Comments: _____

I hereby certify that the above parts have been measured, engraved & installed as recorded.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.3.13 Summary of Parts Used

- Note: Refer to lists in Sections 5.1 and 5.2 for parts which MUST be replaced at overhaul.

Table 25 – Summary of Parts Used

ENGINE NO:			DATE:		
<input type="checkbox"/> Bulk Strip	<input type="checkbox"/> Overhaul		<input type="checkbox"/> Hydraulic		
<input type="checkbox"/> Maintenance	<input type="checkbox"/> Top End Overhaul		<input type="checkbox"/> Solid Lifter		
	NEW	ORIGINAL		NEW	ORIGINAL
CRANKCASE	<input type="checkbox"/>	<input type="checkbox"/>	HEADS	<input type="checkbox"/>	<input type="checkbox"/>
Main Bearings	<input type="checkbox"/>	<input type="checkbox"/>	Rockers	<input type="checkbox"/>	<input type="checkbox"/>
Through Bolts	<input type="checkbox"/>	<input type="checkbox"/>	Shafts	<input type="checkbox"/>	<input type="checkbox"/>
Engine Mount Plate	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
Pick Up Stainer	<input type="checkbox"/>	<input type="checkbox"/>	Collets	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	Valve	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pressure Sender	<input type="checkbox"/>	<input type="checkbox"/>	Springs	<input type="checkbox"/>	<input type="checkbox"/>
Oil Cooler Fitting	<input type="checkbox"/>	<input type="checkbox"/>	Adjustors	<input type="checkbox"/>	<input type="checkbox"/>
Valve Lifters	<input type="checkbox"/>	<input type="checkbox"/>	Solid Pushrods	<input type="checkbox"/>	<input type="checkbox"/>
Tacho Pick-up	<input type="checkbox"/>	<input type="checkbox"/>	Pushrod Tubes	<input type="checkbox"/>	<input type="checkbox"/>
Oil Feed To Heads	<input type="checkbox"/>	<input type="checkbox"/>	Rocker Covers	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pick-up	<input type="checkbox"/>	<input type="checkbox"/>	Valve Guides	<input type="checkbox"/>	<input type="checkbox"/>
O Rings	<input type="checkbox"/>	<input type="checkbox"/>	Rubber T's	<input type="checkbox"/>	<input type="checkbox"/>
CRANKSHAFT	<input type="checkbox"/>	<input type="checkbox"/>	Lifter	<input type="checkbox"/>	<input type="checkbox"/>
Conrods	<input type="checkbox"/>	<input type="checkbox"/>	CYLINDERS	<input type="checkbox"/>	<input type="checkbox"/>
Conrod Bearings	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
Prop Drive	<input type="checkbox"/>	<input type="checkbox"/>	SUMP	<input type="checkbox"/>	<input type="checkbox"/>
Front Seal	<input type="checkbox"/>	<input type="checkbox"/>	Long Temp Sender	<input type="checkbox"/>	<input type="checkbox"/>
Crank Gear	<input type="checkbox"/>	<input type="checkbox"/>	Swept Plenum Chamber	<input type="checkbox"/>	<input type="checkbox"/>
CAM	<input type="checkbox"/>	<input type="checkbox"/>	Induction Pipes	<input type="checkbox"/>	<input type="checkbox"/>
CAM Gear Outer	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
CAM Gear Inner	<input type="checkbox"/>	<input type="checkbox"/>	Induction Gaskets	<input type="checkbox"/>	<input type="checkbox"/>
FLYWHEEL	<input type="checkbox"/>	<input type="checkbox"/>	Heat Shield	<input type="checkbox"/>	<input type="checkbox"/>
Magnets (ignition)	<input type="checkbox"/>	<input type="checkbox"/>	Induction Hose Joiners	<input type="checkbox"/>	<input type="checkbox"/>
Vac Drive Plate	<input type="checkbox"/>	<input type="checkbox"/>	EXHAUST PIPES	<input type="checkbox"/>	<input type="checkbox"/>
Ring Gear	<input type="checkbox"/>	<input type="checkbox"/>	Ex-Gaskets Type	<input type="checkbox"/>	<input type="checkbox"/>
ALTERNATOR	<input type="checkbox"/>	<input type="checkbox"/>	Bevel Type	<input type="checkbox"/>	<input type="checkbox"/>
Magnet Ring	<input type="checkbox"/>	<input type="checkbox"/>	OIL COOLER	<input type="checkbox"/>	<input type="checkbox"/>
Stator	<input type="checkbox"/>	<input type="checkbox"/>	Oil Cooler Adaptor	<input type="checkbox"/>	<input type="checkbox"/>
PISTONS	<input type="checkbox"/>	<input type="checkbox"/>	Oil Hoses	<input type="checkbox"/>	<input type="checkbox"/>
Rings	<input type="checkbox"/>	<input type="checkbox"/>	FUEL PUMP	<input type="checkbox"/>	<input type="checkbox"/>
Gudgeons / Circlips	<input type="checkbox"/>	<input type="checkbox"/>	Push Rod	<input type="checkbox"/>	<input type="checkbox"/>
IGNITION HARNESS	<input type="checkbox"/>	<input type="checkbox"/>	Gaskets / Spacer	<input type="checkbox"/>	<input type="checkbox"/>
Plugs	<input type="checkbox"/>	<input type="checkbox"/>	STARTER MOTOR	<input type="checkbox"/>	<input type="checkbox"/>
Rotors	<input type="checkbox"/>	<input type="checkbox"/>	Clutch Assy	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Caps	<input type="checkbox"/>	<input type="checkbox"/>	OIL PUMP	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Shafts	<input type="checkbox"/>	<input type="checkbox"/>	Housing	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Gears	<input type="checkbox"/>	<input type="checkbox"/>	Spacer Plate	<input type="checkbox"/>	<input type="checkbox"/>
Seals Dizzy	<input type="checkbox"/>	<input type="checkbox"/>	Gears	<input type="checkbox"/>	<input type="checkbox"/>
Rear Seals	<input type="checkbox"/>	<input type="checkbox"/>	CARBY	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Case	<input type="checkbox"/>	<input type="checkbox"/>	Fuel Line	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Posts	<input type="checkbox"/>	<input type="checkbox"/>	Mount	<input type="checkbox"/>	<input type="checkbox"/>
Coils	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



9.3.14 Ground Run-In Procedure

Table 26 – Ground Run-In Procedure

Time	Duration	Condition	RPM	RPM	CHT 4/6	Oil Temp	Oil Pressure
	3	Start and Idle	1400				
	10	Hot Idle Check 1	Idle				
	30 sec / 1	Take-Off Power	Full / 2000				
	1 / 2	75% Power	2800 / 2000				
	1 / 2	Take-Off	Full / 2000				
	15 sec / 2	Full	Full / 2000				
	2	75% Power	2800				
	1	Cooling Run	2000				
	2	75% Power	2800				
	3	Cooling Run	2000				
	2 / 1 / 2	2800 / 2000 / 2800					
	2 / 2	2500 / 2800					
	2 / 3	2500 / 3000					
	2 / 3	2500 / Full					
	3	Cooling Run	1200				
	10	Hot Idle Check 2	Idle				

O.A.T. _____ °C		Use: Aero Shell 100/Exxon 100/BP Aviation Oil 100 2200 2.2 Litres or 2 Litres + Fill Oil Filter 3300 3.4 Litres or 3.2 Litres + Fill Oil Filter							
Alternator: _____ V at 2800 RPM									
Idle Comments:									
Top End (RPM) Comments:				Overall Comments:					
Any Changes / Adjustments Made During Run:									
Post Run-In Checks:		<input type="checkbox"/> Check for Oil Leaks <input type="checkbox"/> Adjust Valves (solid Lifter)		<input type="checkbox"/> Re-Torque Cylinder Heads <input type="checkbox"/> Check Induction / Exhaust					
<input type="checkbox"/> Post-Run Leak-Down:		Cyl 1	<input type="text" value="80"/>	Cyl 2	<input type="text" value="80"/>	Cyl 3	<input type="text" value="80"/>	Cyl 4	<input type="text" value="80"/>
<input type="checkbox"/> Drain Oil & Inhibit									

I hereby certify that this engine has been run in accordance with Jabiru requirements and is fit for use.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.4 3300 Top End Overhaul Booklet

9.4.1 Job Traveller

Table 27 – Job Traveller

Jabiru Engine – Job Traveller		Form: JABENGJT-1
<input type="checkbox"/> CASA VH Registration	<input type="checkbox"/> RA-Aus or Other Registration	
Job Number:	Order / Invoice No:	
Engine Model: <input type="checkbox"/> -2200 <input type="checkbox"/> -3300 <input type="checkbox"/> -5100	Engine Serial Number:	
Date Received:	Owner:	
TSO:		
Work to be done (<i>iaw Jabiru Approved Data & certified for in the applicable section of the engine overhaul booklet</i>):		
<input type="checkbox"/> - Trade-In (Full Overhaul)	<input type="checkbox"/> - Full overhaul & return to owner	
<input type="checkbox"/> - Top End Inspection	<input type="checkbox"/> - Bulk Strip	
<input type="checkbox"/> - Maintenance (RA-Aus only)	<input type="checkbox"/> - Other:	
Records to be filed:		
<input type="checkbox"/> - Copy of ARC	<input type="checkbox"/> - Jabiru Engine Job Traveller	
<input type="checkbox"/> - Copy of all job sheets	<input type="checkbox"/> - Copy of specialist inspection reports - MPI etc.	
<input type="checkbox"/> - Report to owner	<input type="checkbox"/> - Copy of log book entry	
<input type="checkbox"/> - Job book, completed.		
Parts Shipped To Jabiru With Engine:		
<input type="checkbox"/> - Exhaust extractors	<input type="checkbox"/> - Muffler	
<input type="checkbox"/> - Starter Motor	<input type="checkbox"/> - Oil Cooler	
Use:		
<input type="checkbox"/> - School – mainly circuits	<input type="checkbox"/> - School – mainly cross-country	
<input type="checkbox"/> - School – even mix of circuits and cross-country	<input type="checkbox"/> - Private	
<input type="checkbox"/> - Unknown		
Reason for Overhaul:		
<input type="checkbox"/> -Time Expired	<input type="checkbox"/> -Update Spec	
<input type="checkbox"/> -Other: _____		
Since manufacture or its last overhaul has the engine had any of the following::		
A prop strike or other accident? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Poor cylinder leak-downs?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High, low or fluctuating oil pressure? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Major work (i.e. top end overhaul)	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High oil temperature? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Been hard to start when hot?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High cylinder head temperatures? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Been hard to start when cold?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
Been using a Jabiru or Sensenich Prop? <input type="checkbox"/> -Yes <input type="checkbox"/> -No		
If the engine has had major work, please give a quick description of what was done and who carried it out:		
Shipping Details:		
Parts to be shipped to customer with engine:	<input type="checkbox"/> -Exhaust extractors	<input type="checkbox"/> -Muffler
	<input type="checkbox"/> -Starter Motor	<input type="checkbox"/> -Oil Cooler
Overhauled by:	<input type="checkbox"/> -Gordon & Jenny Tate <input type="checkbox"/> -Jabiru; _____	
<input type="checkbox"/> - INHIBITED		
Date:	Signed by:	



9.4.2 Engine Details

Engine Serial #: 33 _____

Date: _____

9.4.3 Top End Subassembly A Build Sheet – Conrods

Table 28 – Build Sheet A

No.	Details	Initials	Checked By	Date
A1	Clean Conrods			
A2	Inspect and measure Conrods			
A3	Fit the Conrods to the Crankshaft; Use Loctite 620 on the bolts and torque to 18 ft.lbs			
A4	Stage A - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

MPI Release Note No.

9.4.4 Top End Subassembly C Build Sheet – Pistons, Cylinders and Cylinder Heads

Table 29 – Build Sheet C

No.	Details	Initials	Checked By	Date
C1	Clean and deburr all parts			
C2	Record all measurements			
C3	Install pushrod tube 'O' Rings, springs, washers and circlips			
C4	Check valve seats, fit spring retainers, install valves			
C5	Complete rocker shafts, posts and rocker assemblies			
C6	Fit cylinder base 'O' rings			
C7	Measure and fit front circlip			
C8	Check ring end gaps, fit rings to pistons			
C9	Fit cylinders to heads. Torque: 12 ft/lbs / 24 ft.lbs			
C10	Install piston assembly to cylinder just clear of the oil ring			
C11	Stage C - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.4.5 Top End Subassembly E Build Sheet – Starter Motor

Table 30 – Build Sheet E

No.	Details	Initials	Checked By	Date
E1	Fit new bushes and bearings to starter motor & bendix gear assembly. Fit new brushes to motor & re-assemble with Loctite 243 (if needed)			
E2	Stage E - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

9.4.6 Top End Subassembly F Build Sheet – Gear Case

Table 31 – Build Sheet F

No.	Details	Initials	Checked By	Date
F1	Deburr, clean and inspect all of the gears			
F2	Measure the shaft post internal diameters and the distributor shaft diameters			
F3	Using loctite 515 fit the shaft posts to the gear housing			
F4	Fit the distributor shaft seals and rear crankshaft seal			
F5	Fit shafts to gears			
F6	Fit the distributor shafts and gears to the gear housing			
F7	Check End Clearance of Distributor Shaft to Case Flange			
F8	Stage F - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.4.7 Top End Subassembly G – Fuel Pump and Carburettor

Table 32 – Build Sheet G

No.	Check	Size	Initials	Checked By	Date
G1	Main Jet				
G2	Needle Jet				
G3	Idle Jet				
G4	Needle 4A138A0D-1				
G5	Float seat ___ mm dia				
G6	Gravity Feed Valve 47-969				
G7	Air Bleed Ø1.6mm				
G8	Idle Mixture Screw Out 1 Turn				
G9	Choke Jet Ø1.2mm				
G10	Inspect fuel pump				
G11	Stage G - Stage Inspection of Assembly				

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

9.4.8 Top End Subassembly H – Final Assembly

Table 33 – Build Sheet H

No.	Details	Initials	Checked By	Date
H1	Place all through bolts in crankcase for cylinder bases			
H2	Fit piston and cylinder Assemblies. Check circlips			
H3	Stage H1 - Stage Inspection of Assembly			
H4	Tension the cylinder base studs/bolts			
H5	Fit pushrods and valve gear. Set gap to 0.10"			
H6	Fit sump and induction tubes			
H7	Fit Carburettor assembly			
H8	Fit fuel pump			
H9	Fit exhaust system			
H10	Stage H2 - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.4.9 Top End Jabiru 3300 – Engine Post Run Procedure – Stage J

Table 34 – Post Run Inspection

No.	Details	Initials	Checked By	Date												
J1	Heads re-torqued to 24 ft.lbs. Valves adjusted															
J2	Check induction/exhaust bolts															
J3	Any changes to be made															
J4	Rerun, check for oil leaks and/or any modifications made (oil pressure/leaks etc)															
J5	Check charging rate of alternator Volts: _____															
J6	Leak Down Test Results: 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 4 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 5 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 6 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table>		80		80		80		80		80		80			
80																
80																
80																
80																
80																
80																
J7	Check all paper work															
J8	Drain fuel/oil. Prepare for shipment, inhibited and sealed															
J9	Stage J - Post Engine Run Procedure Completed															

I hereby certify that the above Post Run Procedure has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.4.10 Jabiru 3300 Parts Measure and Clearance Record Sheet

Table 35 – Measure & Clearance Record Sheet

Engine No.			Date:			
Crankshaft	P/No.	Batch:	Item:	Comments		
Crank Big Ends	1	2	3	4	5	6
Conrod Big Ends	1	2	3	4	5	6
Clearances	1	2	3	4	5	6
Head 1	P/No.	Batch:	Item:	Comments		
Head 2	P/No.	Batch:	Item:	Comments		
Head 3	P/No.	Batch:	Item:	Comments		
Head 4	P/No.	Batch:	Item:	Comments		
Head 5	P/No.	Batch:	Item:	Comments		
Head 6	P/No.	Batch:	Item:	Comments		
In. Valve Guides	1	2	3	4	5	6
Ex. Valve Guides	1	2	3	4	5	6
In. Valves	1	2	3	4	5	6
Ex. Valves	1	2	3	4	5	6
In. Clearances	1	2	3	4	5	6
Ex. Clearances	1	2	3	4	5	6
Cylinder Barrel 1	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 2	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 3	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 4	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 5	P/No.	Batch:	Item:	Comments		
Cylinder Barrel 6	P/No.	Batch:	Item:	Comments		
Barrel 1	Bore:	Length:		Barrel 4	Bore:	Length:
Barrel 2	Bore:	Length:		Barrel 5	Bore:	Length:
Barrel 3	Bore:	Length:		Barrel 6	Bore:	Length:
Piston Diameters:	1	2	3	4	5	6
Clearance	1	2	3	4	5	6
Ring Gap Top	1	2	3	4	5	6
Ring Gap Bottom	1	2	3	4		

Comments: _____

I hereby certify that the above parts have been measured, engraved & installed as recorded.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.4.11 Summary of Parts Used

- Note: Refer to lists in Sections 5.1 and 5.2 for parts which MUST be replaced at overhaul.

Table 36 – Summary of Parts Used

ENGINE NO:			DATE:		
<input type="checkbox"/> Bulk Strip	<input type="checkbox"/> Overhaul		<input type="checkbox"/> Hydraulic		
<input type="checkbox"/> Maintenance	<input type="checkbox"/> Top End Overhaul		<input type="checkbox"/> Solid Lifter		
	NEW	ORIGINAL		NEW	ORIGINAL
CRANKCASE	<input type="checkbox"/>	<input type="checkbox"/>	HEADS	<input type="checkbox"/>	<input type="checkbox"/>
Main Bearings	<input type="checkbox"/>	<input type="checkbox"/>	Rockers	<input type="checkbox"/>	<input type="checkbox"/>
Through Bolts	<input type="checkbox"/>	<input type="checkbox"/>	Shafts	<input type="checkbox"/>	<input type="checkbox"/>
Engine Mount Plate	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
Pick Up Stainer	<input type="checkbox"/>	<input type="checkbox"/>	Collets	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	Valve	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pressure Sender	<input type="checkbox"/>	<input type="checkbox"/>	Springs	<input type="checkbox"/>	<input type="checkbox"/>
Oil Cooler Fitting	<input type="checkbox"/>	<input type="checkbox"/>	Adjustors	<input type="checkbox"/>	<input type="checkbox"/>
Valve Lifters	<input type="checkbox"/>	<input type="checkbox"/>	Solid Pushrods	<input type="checkbox"/>	<input type="checkbox"/>
Tacho Pick-up	<input type="checkbox"/>	<input type="checkbox"/>	Pushrod Tubes	<input type="checkbox"/>	<input type="checkbox"/>
Oil Feed To Heads	<input type="checkbox"/>	<input type="checkbox"/>	Rocker Covers	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pick-up	<input type="checkbox"/>	<input type="checkbox"/>	Valve Guides	<input type="checkbox"/>	<input type="checkbox"/>
O Rings	<input type="checkbox"/>	<input type="checkbox"/>	Rubber T's	<input type="checkbox"/>	<input type="checkbox"/>
CRANKSHAFT	<input type="checkbox"/>	<input type="checkbox"/>	Lifter	<input type="checkbox"/>	<input type="checkbox"/>
Conrods	<input type="checkbox"/>	<input type="checkbox"/>	CYLINDERS	<input type="checkbox"/>	<input type="checkbox"/>
Conrod Bearings	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
Prop Drive	<input type="checkbox"/>	<input type="checkbox"/>	SUMP	<input type="checkbox"/>	<input type="checkbox"/>
Front Seal	<input type="checkbox"/>	<input type="checkbox"/>	Long Temp Sender	<input type="checkbox"/>	<input type="checkbox"/>
Crank Gear	<input type="checkbox"/>	<input type="checkbox"/>	Swept Plenum Chamber	<input type="checkbox"/>	<input type="checkbox"/>
CAM	<input type="checkbox"/>	<input type="checkbox"/>	Induction Pipes	<input type="checkbox"/>	<input type="checkbox"/>
CAM Gear Outer	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
CAM Gear Inner	<input type="checkbox"/>	<input type="checkbox"/>	Induction Gaskets	<input type="checkbox"/>	<input type="checkbox"/>
FLYWHEEL	<input type="checkbox"/>	<input type="checkbox"/>	Heat Shield	<input type="checkbox"/>	<input type="checkbox"/>
Magnets (ignition)	<input type="checkbox"/>	<input type="checkbox"/>	Induction Hose Joiners	<input type="checkbox"/>	<input type="checkbox"/>
Vac Drive Plate	<input type="checkbox"/>	<input type="checkbox"/>	EXHAUST PIPES	<input type="checkbox"/>	<input type="checkbox"/>
Ring Gear	<input type="checkbox"/>	<input type="checkbox"/>	Ex-Gaskets Type	<input type="checkbox"/>	<input type="checkbox"/>
ALTERNATOR	<input type="checkbox"/>	<input type="checkbox"/>	Bevel Type	<input type="checkbox"/>	<input type="checkbox"/>
Magnet Ring	<input type="checkbox"/>	<input type="checkbox"/>	OIL COOLER	<input type="checkbox"/>	<input type="checkbox"/>
Stator	<input type="checkbox"/>	<input type="checkbox"/>	Oil Cooler Adaptor	<input type="checkbox"/>	<input type="checkbox"/>
PISTONS	<input type="checkbox"/>	<input type="checkbox"/>	Oil Hoses	<input type="checkbox"/>	<input type="checkbox"/>
Rings	<input type="checkbox"/>	<input type="checkbox"/>	FUEL PUMP	<input type="checkbox"/>	<input type="checkbox"/>
Gudgeons / Circlips	<input type="checkbox"/>	<input type="checkbox"/>	Push Rod	<input type="checkbox"/>	<input type="checkbox"/>
IGNITION HARNESS	<input type="checkbox"/>	<input type="checkbox"/>	Gaskets / Spacer	<input type="checkbox"/>	<input type="checkbox"/>
Plugs	<input type="checkbox"/>	<input type="checkbox"/>	STARTER MOTOR	<input type="checkbox"/>	<input type="checkbox"/>
Rotors	<input type="checkbox"/>	<input type="checkbox"/>	Clutch Assy	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Caps	<input type="checkbox"/>	<input type="checkbox"/>	OIL PUMP	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Shafts	<input type="checkbox"/>	<input type="checkbox"/>	Housing	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Gears	<input type="checkbox"/>	<input type="checkbox"/>	Spacer Plate	<input type="checkbox"/>	<input type="checkbox"/>
Seals Dizzy	<input type="checkbox"/>	<input type="checkbox"/>	Gears	<input type="checkbox"/>	<input type="checkbox"/>
Rear Seals	<input type="checkbox"/>	<input type="checkbox"/>	CARBY	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Case	<input type="checkbox"/>	<input type="checkbox"/>	Fuel Line	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Posts	<input type="checkbox"/>	<input type="checkbox"/>	Mount	<input type="checkbox"/>	<input type="checkbox"/>
Coils	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



9.4.12 Ground Run-In Procedure

Table 37 – Ground Run-In Procedure

Pre Run-In Checks:		<input type="checkbox"/> Correct Oil Type & Quantity	<input type="checkbox"/> All connections secure
	<input type="checkbox"/> Propeller Secure	<input type="checkbox"/> Check ignitions L/R (check during run)	
	<input type="checkbox"/> Idle Set		

Time	Duration	Condition	RPM	RPM	CHT 4/6	Oil Temp	Oil Pressure
	3	Start and Idle	1400				
	10	Hot Idle Check 1	Idle				
	30 sec / 1	Take-Off Power	Full / 2000				
	1 / 2	75% Power	2800 / 2000				
	1 / 2	Take-Off	Full / 2000				
	15 sec / 2	Full	Full / 2000				
	2	75% Power	2800				
	1	Cooling Run	2000				
	2	75% Power	2800				
	3	Cooling Run	2000				
	2 / 1 / 2	2800 / 2000 / 2800					
	2 / 2	2500 / 2800					
	2 / 3	2500 / 3000					
	2 / 3	2500 / Full					
	3	Cooling Run	1200				
	10	Hot Idle Check 2	Idle				

O.A.T. _____ °C	Use: Aero Shell 100/Exxon 100/BP Aviation Oil 100 2200 2.2 Litres or 2 Litres + Fill Oil Filter 3300 3.4 Litres or 3.2 Litres + Fill Oil Filter												
Alternator: _____ V at 2800 RPM													
Idle Comments:													
Top End (RPM) Comments:	Overall Comments:												
Any Changes / Adjustments Made During Run:													
Post Run-In Checks: <input type="checkbox"/> Check for Oil Leaks <input type="checkbox"/> Adjust Valves (solid Lifter)	<input type="checkbox"/> Re-Torque Cylinder Heads <input type="checkbox"/> Check Induction / Exhaust												
<input type="checkbox"/> Post-Run Leak-Down: <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">Cyl 1</td> <td style="border: 1px solid black; width: 40px; text-align: center;">80</td> <td style="border: 1px solid black; padding: 2px;">Cyl 2</td> <td style="border: 1px solid black; width: 40px; text-align: center;">80</td> <td style="border: 1px solid black; padding: 2px;">Cyl 3</td> <td style="border: 1px solid black; width: 40px; text-align: center;">80</td> <td style="border: 1px solid black; padding: 2px;">Cyl 4</td> <td style="border: 1px solid black; width: 40px; text-align: center;">80</td> <td style="border: 1px solid black; padding: 2px;">Cyl 5</td> <td style="border: 1px solid black; width: 40px; text-align: center;">80</td> <td style="border: 1px solid black; padding: 2px;">Cyl 6</td> <td style="border: 1px solid black; width: 40px; text-align: center;">80</td> </tr> </table>	Cyl 1	80	Cyl 2	80	Cyl 3	80	Cyl 4	80	Cyl 5	80	Cyl 6	80	
Cyl 1	80	Cyl 2	80	Cyl 3	80	Cyl 4	80	Cyl 5	80	Cyl 6	80		
<input type="checkbox"/> Drain Oil & Inhibit													

I hereby certify that this engine has been run in accordance with Jabiru requirements and is fit for use.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.5 3300 Overhaul Booklet

9.5.1 Job Traveller

Table 38 – Job Traveller

Jabiru Engine – Job Traveller		Form: JABENGJT-1
<input type="checkbox"/> CASA VH Registration	<input type="checkbox"/> RA-Aus or Other Registration	
Job Number:	Order / Invoice No:	
Engine Model: <input type="checkbox"/> -2200 <input type="checkbox"/> -3300 <input type="checkbox"/> -5100	Engine Serial Number:	
Date Received:	Owner:	
TSO:		
Work to be done (<i>iaw Jabiru Approved Data & certified for in the applicable section of the engine overhaul booklet</i>):		
<input type="checkbox"/> - Trade-In (Full Overhaul)	<input type="checkbox"/> - Full overhaul & return to owner	
<input type="checkbox"/> - Top End Inspection	<input type="checkbox"/> - Bulk Strip	
<input type="checkbox"/> - Maintenance (RA-Aus only)	<input type="checkbox"/> - Other:	
Records to be filed:		
<input type="checkbox"/> - Copy of ARC	<input type="checkbox"/> - Jabiru Engine Job Traveller	
<input type="checkbox"/> - Copy of all job sheets	<input type="checkbox"/> - Copy of specialist inspection reports - MPI etc.	
<input type="checkbox"/> - Report to owner	<input type="checkbox"/> - Copy of log book entry	
<input type="checkbox"/> - Job book, completed.		
Parts Shipped To Jabiru With Engine:		
<input type="checkbox"/> - Exhaust extractors	<input type="checkbox"/> - Muffler	
<input type="checkbox"/> - Starter Motor	<input type="checkbox"/> - Oil Cooler	
Use:		
<input type="checkbox"/> - School – mainly circuits	<input type="checkbox"/> - School – mainly cross-country	
<input type="checkbox"/> - School – even mix of circuits and cross-country	<input type="checkbox"/> - Private	
<input type="checkbox"/> - Unknown		
Reason for Overhaul:		
<input type="checkbox"/> -Time Expired	<input type="checkbox"/> -Update Spec	
<input type="checkbox"/> -Other: _____		
Since manufacture or its last overhaul has the engine had any of the following::		
A prop strike or other accident? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Poor cylinder leak-downs?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High, low or fluctuating oil pressure? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Major work (i.e. top end overhaul)	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High oil temperature? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Been hard to start when hot?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
High cylinder head temperatures? <input type="checkbox"/> -Yes <input type="checkbox"/> -No	Been hard to start when cold?	<input type="checkbox"/> -Yes <input type="checkbox"/> -No
Been using a Jabiru or Sensenich Prop? <input type="checkbox"/> -Yes <input type="checkbox"/> -No		
If the engine has had major work, please give a quick description of what was done and who carried it out:		
Shipping Details:		
Parts to be shipped to customer with engine:	<input type="checkbox"/> -Exhaust extractors	<input type="checkbox"/> -Muffler
	<input type="checkbox"/> -Starter Motor	<input type="checkbox"/> -Oil Cooler
Overhauled by:	<input type="checkbox"/> -Gordon & Jenny Tate	<input type="checkbox"/> -Jabiru; _____
<input type="checkbox"/> - INHIBITED		
		Date: _____
		Signed by: _____



9.5.2 Engine Details

Engine Serial #: 33 _____

Date: _____

9.5.3 Subassembly A Build Sheet – Crankshaft, Propeller Mount Flange and Conrods

Table 39 – Build Sheet A

No.	Details	Initials	Checked By	Date
A1	Inspect for Burrs, Oil Holes, Chamfers; Clean Crankshaft, Conrods and Propeller Mount Plate			
A2	Inspect Oil Holes and insert Welch Plugs			
A3	Measure Crankshaft (refer to Goods Inwards Inspection Sheet)			
A4	Inspect and measure Propeller Mount Flange			
A5	Inspect and measure Conrods (refer to Goods Inwards Inspection Sheet)			
A6	Temporarily Mount Propeller Mount Flange to Crankshaft and bolt to stand			
A7	Fit the Conrods to the Crankshaft; Use Loctite 620 on the bolts and torque to 18 ft.lbs			
A8	Stage A - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

MPI Release Note No.



9.5.4 Subassembly B Build Sheet – Crankcase and Camshaft Assembly

Table 40 – Build Sheet B

No.	Details	Initials	Checked By	Date
B1	Inspect case, deburr, clean, check oil holes			
B2	Fit inner stud "O" rings			
B3	Fit all studs			
B4	Fit outer oil suction welch plugs			
B5	Fit oil relief valve, oil pressure sender and pressure switch			
B6	Fit bearing shells (16)			
B7	Blue surfaces; Assemble and torque			
B8	Measure main tunnel and camshaft bearings			
B9	Disassemble; Measure Cam Follower Bores			
B10	Fit Lifters			
B11	Check Camshaft End Float			
B12	Check Crankshaft End Float			
B13	Stage B - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd





9.5.5 Subassembly C Build Sheet – Pistons, Cylinders and Cylinder Heads

Table 41 – Build Sheet C

No.	Details	Initials	Checked By	Date
C1	Clean and deburr all parts			
C2	Record all measurements			
C3	Install pushrod tube 'O' Rings, springs, washers and circlips			
C4	Check valve seats, fit spring retainers, install valves			
C5	Complete rocker shafts, posts and rocker assemblies			
C6	Fit cylinder base 'O' rings			
C7	Measure and fit front circlip			
C8	Check ring end gaps, fit rings to pistons			
C9	Fit cylinders to heads. Torque: 12 ft/lbs / 24 ft.lbs			
C10	Install piston assembly to cylinder just clear of the oil ring			
C11	Stage C - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.5.6 Subassembly D Build Sheet – Sump

Table 42 – Build Sheet D

No.	Details	Initials	Checked By	Date
D1	Clean and inspect the sump.			
D2	Clean out blind threads using a suitable sized tap			
D3	Ensure all seals and gaskets on plugs and terminals are serviceable.			
D4	Stage D - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

9.5.7 Subassembly E Build Sheet – Flywheel, Ignition Coils, Starter Motor And Alternator

Table 43 – Build Sheet E

No.	Details	Initials	Checked By	Date
E1	Clean and de-burr starter ring gear & bendix gears.			
E2	Assemble magnets, pole plates, tacho tags and alternator rotor to flywheel			
E3	Verify magnet strength and polarity correct			
E4	Fit new bushes and bearings to starter motor & bendix gear assembly. Fit new brushes to motor & re-assemble with Loctite 243 (if needed)			
E5	Stage E - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.5.8 Subassembly F Build Sheet – Gear Case

Table 44 – Build Sheet F

No.	Details	Initials	Checked By	Date
F1	Deburr, clean and inspect all of the gears			
F2	Measure the shaft post internal diameters and the distributor shaft diameters			
F3	Using loctite 515 fit the shaft posts to the gear housing			
F4	Fit the distributor shaft seals and rear crankshaft seal			
F5	Fit shafts to gears			
F6	Fit the distributor shafts and gears to the gear housing			
F7	Check End Clearance of Distributor Shaft to Case Flange			
F8	Stage F - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd

9.5.9 Subassembly G – Fuel Pump and Carburettor

Table 45 – Build Sheet G

No.	Check	Size	Initials	Checked By	Date
G1	Main Jet				
G2	Needle Jet				
G3	Idle Jet				
G4	Needle 4A138A0D-1				
G5	Float seat ___ mm dia				
G6	Gravity Feed Valve 47-969				
G7	Air Bleed Ø1.6mm				
G8	Idle Mixture Screw Out 1 Turn				
G9	Choke Jet Ø1.2mm				
G10	Stage G - Stage Inspection of Assembly				

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.5.10 Subassembly H – Final Assembly

Table 46 – Build Sheet H

No.	Details	Initials	Checked By	Date
H1	Apply Loctite 515 to crankcase halves; lubricate where necessary			
H2	Locate camshaft in crankcase half			
H3	Locate 2 crankcase halves over crankshaft			
H4	Stage H1 - Stage Inspection of Assembly			
H5	Tension front (2) and rear (2)			
H6	Place all through bolts in crankcase for cylinder bases			
H7	Fit piston and cylinder Assemblies. Check circlips			
H8	Stage H2 - Stage Inspection of Assembly			
H9	Tension the cylinder base studs/bolts			
H10	Fit pushrods and valve gear. Set gap to 0.10"			
H11	Fit sump and induction tubes			
H12	Check camshaft timing			
H13	Fit engine mount plate and gearbox housing			
H14	Fit flywheel, alternator mount plate and ignition coils			
H15	Fit Carburettor assembly			
H16	Fit fuel pump			
H17	Fit oil pump assembly			
H18	Fit front seal and propeller flange Torque 30 ft.lbs/Lockwire then std flange lockwire not required			
H19	Fit exhaust system			
H20	Stage H3 - Stage Inspection of Assembly			

I hereby certify that the above subassembly has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.5.11 Jabiru 3300 – Engine Post Run Procedure – Stage J

Table 47 – Post Run Inspection

No.	Details	Initials	Checked By	Date												
J1	Heads re-torqued to 24 ft.lbs. Valves adjusted															
J2	Check induction/exhaust bolts															
J3	Any changes to be made															
J4	Rerun, check for oil leaks and/or any modifications made (oil pressure/leaks etc)															
J5	Check charging rate of alternator Volts: _____															
J6	Leak Down Test Results: 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 3 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 4 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 5 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table> 6 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td> </td></tr><tr><td>80</td></tr></table>		80		80		80		80		80		80			
80																
80																
80																
80																
80																
80																
J7	Check all paper work															
J8	Drain fuel/oil. Prepare for shipment, inhibited and sealed															
J9	Stage J - Post Engine Run Procedure Completed															

I hereby certify that the above Post Run Procedure has been assembled in accordance with the applicable Jabiru Pty Ltd Instructions and Maintenance procedures.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.5.12 Jabiru 3300 Parts Measure and Clearance Record Sheet

Table 48 – Measure & Clearance Record Sheet

Engine No.				Date:				
Crankshaft	P/No.		Batch:	Item:	Comments			
Crank Mains:	1	2	3	4	5	6	7	8
Crankcase Left	P/No.		Batch:	Item:	Comments			
Crankcase Right	P/No.		Batch:	Item:	Comments			
Crankcase Assy Main Tunnels	1	2	3	4	5	6	7	8
Clearances	1	2	3	4	5	6	7	8
Crankshaft	P/No.		Batch:	Item:	Comments			
Crank Big Ends	1	2	3	4	5	6		
Conrod Big Ends	1	2	3	4	5	6		
Clearances	1	2	3	4	5	6		
Camshaft	P/No.		Batch:	Item:	Comments			
Camshaft Journals	1	2	3	4	5	6	7	8
Camshaft Tunnel	1	2	3	4	5	6	7	8
Clearances	1	2	3	4	5	6	7	8
Head 1	P/No.		Batch:	Item:	Comments			
Head 2	P/No.		Batch:	Item:	Comments			
Head 3	P/No.		Batch:	Item:	Comments			
Head 4	P/No.		Batch:	Item:	Comments			
Head 5	P/No.		Batch:	Item:	Comments			
Head 6	P/No.		Batch:	Item:	Comments			
In. Valve Guides	1	2	3	4	5	6		
Ex. Valve Guides	1	2	3	4	5	6		
In. Valves	1	2	3	4	5	6		
Ex. Valves	1	2	3	4	5	6		
In. Clearances	1	2	3	4	5	6		
Ex. Clearances	1	2	3	4	5	6		
Cylinder Barrel 1	P/No.		Batch:	Item:	Comments			
Cylinder Barrel 2	P/No.		Batch:	Item:	Comments			
Cylinder Barrel 3	P/No.		Batch:	Item:	Comments			
Cylinder Barrel 4	P/No.		Batch:	Item:	Comments			
Cylinder Barrel 5	P/No.		Batch:	Item:	Comments			
Cylinder Barrel 6	P/No.		Batch:	Item:	Comments			
Barrel 1	Bore:	Length:		Barrel 4	Bore:	Length:		
Barrel 2	Bore:	Length:		Barrel 5	Bore:	Length:		
Barrel 3	Bore:	Length:		Barrel 6	Bore:	Length:		
Piston Diameters:	1	2	3	4	5	6		
Clearance	1	2	3	4	5	6		
Ring Gap Top	1	2	3	4	5	6		
Ring Gap Bottom	1	2	3	4				

Comments: _____

I hereby certify that the above parts have been measured, engraved & installed as recorded.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd



9.5.13 Summary of Parts Used

- Note: Refer to lists in Sections 5.1 and 5.2 for parts which MUST be replaced at overhaul.

Table 49 – Summary of Parts Used

ENGINE NO:			DATE:		
<input type="checkbox"/> Bulk Strip	<input type="checkbox"/> Overhaul		<input type="checkbox"/> Hydraulic		
<input type="checkbox"/> Maintenance	<input type="checkbox"/> Top End Overhaul		<input type="checkbox"/> Solid Lifter		
	NEW	ORIGINAL		NEW	ORIGINAL
CRANKCASE	<input type="checkbox"/>	<input type="checkbox"/>	HEADS	<input type="checkbox"/>	<input type="checkbox"/>
Main Bearings	<input type="checkbox"/>	<input type="checkbox"/>	Rockers	<input type="checkbox"/>	<input type="checkbox"/>
Through Bolts	<input type="checkbox"/>	<input type="checkbox"/>	Shafts	<input type="checkbox"/>	<input type="checkbox"/>
Engine Mount Plate	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
Pick Up Stainer	<input type="checkbox"/>	<input type="checkbox"/>	Collets	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	Valve	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pressure Sender	<input type="checkbox"/>	<input type="checkbox"/>	Springs	<input type="checkbox"/>	<input type="checkbox"/>
Oil Cooler Fitting	<input type="checkbox"/>	<input type="checkbox"/>	Adjustors	<input type="checkbox"/>	<input type="checkbox"/>
Valve Lifters	<input type="checkbox"/>	<input type="checkbox"/>	Solid Pushrods	<input type="checkbox"/>	<input type="checkbox"/>
Tacho Pick-up	<input type="checkbox"/>	<input type="checkbox"/>	Pushrod Tubes	<input type="checkbox"/>	<input type="checkbox"/>
Oil Feed To Heads	<input type="checkbox"/>	<input type="checkbox"/>	Rocker Covers	<input type="checkbox"/>	<input type="checkbox"/>
Oil Pick-up	<input type="checkbox"/>	<input type="checkbox"/>	Valve Guides	<input type="checkbox"/>	<input type="checkbox"/>
O Rings	<input type="checkbox"/>	<input type="checkbox"/>	Rubber T's	<input type="checkbox"/>	<input type="checkbox"/>
CRANKSHAFT	<input type="checkbox"/>	<input type="checkbox"/>	Lifter	<input type="checkbox"/>	<input type="checkbox"/>
Conrods	<input type="checkbox"/>	<input type="checkbox"/>	CYLINDERS	<input type="checkbox"/>	<input type="checkbox"/>
Conrod Bearings	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
Prop Drive	<input type="checkbox"/>	<input type="checkbox"/>	SUMP	<input type="checkbox"/>	<input type="checkbox"/>
Front Seal	<input type="checkbox"/>	<input type="checkbox"/>	Long Temp Sender	<input type="checkbox"/>	<input type="checkbox"/>
Crank Gear	<input type="checkbox"/>	<input type="checkbox"/>	Swept Plenum Chamber	<input type="checkbox"/>	<input type="checkbox"/>
CAM	<input type="checkbox"/>	<input type="checkbox"/>	Induction Pipes	<input type="checkbox"/>	<input type="checkbox"/>
CAM Gear Outer	<input type="checkbox"/>	<input type="checkbox"/>	O Rings	<input type="checkbox"/>	<input type="checkbox"/>
CAM Gear Inner	<input type="checkbox"/>	<input type="checkbox"/>	Induction Gaskets	<input type="checkbox"/>	<input type="checkbox"/>
FLYWHEEL	<input type="checkbox"/>	<input type="checkbox"/>	Heat Shield	<input type="checkbox"/>	<input type="checkbox"/>
Magnets (ignition)	<input type="checkbox"/>	<input type="checkbox"/>	Induction Hose Joiners	<input type="checkbox"/>	<input type="checkbox"/>
Vac Drive Plate	<input type="checkbox"/>	<input type="checkbox"/>	EXHAUST PIPES	<input type="checkbox"/>	<input type="checkbox"/>
Ring Gear	<input type="checkbox"/>	<input type="checkbox"/>	Ex-Gaskets Type	<input type="checkbox"/>	<input type="checkbox"/>
ALTERNATOR	<input type="checkbox"/>	<input type="checkbox"/>	Bevel Type	<input type="checkbox"/>	<input type="checkbox"/>
Magnet Ring	<input type="checkbox"/>	<input type="checkbox"/>	OIL COOLER	<input type="checkbox"/>	<input type="checkbox"/>
Stator	<input type="checkbox"/>	<input type="checkbox"/>	Oil Cooler Adaptor	<input type="checkbox"/>	<input type="checkbox"/>
PISTONS	<input type="checkbox"/>	<input type="checkbox"/>	Oil Hoses	<input type="checkbox"/>	<input type="checkbox"/>
Rings	<input type="checkbox"/>	<input type="checkbox"/>	FUEL PUMP	<input type="checkbox"/>	<input type="checkbox"/>
Gudgeons / Circlips	<input type="checkbox"/>	<input type="checkbox"/>	Push Rod	<input type="checkbox"/>	<input type="checkbox"/>
IGNITION HARNESS	<input type="checkbox"/>	<input type="checkbox"/>	Gaskets / Spacer	<input type="checkbox"/>	<input type="checkbox"/>
Plugs	<input type="checkbox"/>	<input type="checkbox"/>	STARTER MOTOR	<input type="checkbox"/>	<input type="checkbox"/>
Rotors	<input type="checkbox"/>	<input type="checkbox"/>	Clutch Assy	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Caps	<input type="checkbox"/>	<input type="checkbox"/>	OIL PUMP	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Shafts	<input type="checkbox"/>	<input type="checkbox"/>	Housing	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Gears	<input type="checkbox"/>	<input type="checkbox"/>	Spacer Plate	<input type="checkbox"/>	<input type="checkbox"/>
Seals Dizzy	<input type="checkbox"/>	<input type="checkbox"/>	Gears	<input type="checkbox"/>	<input type="checkbox"/>
Rear Seals	<input type="checkbox"/>	<input type="checkbox"/>	CARBY	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Case	<input type="checkbox"/>	<input type="checkbox"/>	Fuel Line	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy Posts	<input type="checkbox"/>	<input type="checkbox"/>	Mount	<input type="checkbox"/>	<input type="checkbox"/>
Coils	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>



9.5.14 Ground Run-In Procedure

Table 50 – Ground Run-In Procedure

Time	Duration	Condition	RPM	RPM	CHT 4/6	Oil Temp	Oil Pressure
	3	Start and Idle	1400				
	10	Hot Idle Check 1	Idle				
	30 sec / 1	Take-Off Power	Full / 2000				
	1 / 2	75% Power	2800 / 2000				
	1 / 2	Take-Off	Full / 2000				
	15 sec / 2	Full	Full / 2000				
	2	75% Power	2800				
	1	Cooling Run	2000				
	2	75% Power	2800				
	3	Cooling Run	2000				
	2 / 1 / 2	2800 / 2000 / 2800					
	2 / 2	2500 / 2800					
	2 / 3	2500 / 3000					
	2 / 3	2500 / Full					
	3	Cooling Run	1200				
	10	Hot Idle Check 2	Idle				

O.A.T. _____ °C		Use: Aero Shell 100/Exxon 100/BP Aviation Oil 100 2200 2.2 Litres or 2 Litres + Fill Oil Filter 3300 3.4 Litres or 3.2 Litres + Fill Oil Filter						
Alternator: _____ V at 2800 RPM								
Idle Comments:								
Top End (RPM) Comments:		Overall Comments:						
Any Changes / Adjustments Made During Run:								
Post Run-In Checks: <input type="checkbox"/> Check for Oil Leaks <input type="checkbox"/> Re-Torque Cylinder Heads <input type="checkbox"/> Adjust Valves (solid Lifter) <input type="checkbox"/> Check Induction / Exhaust								
<input type="checkbox"/> Post-Run Leak-Down:	Cyl 1 <table border="1"><tr><td>80</td></tr></table> Cyl 2 <table border="1"><tr><td>80</td></tr></table> Cyl 3 <table border="1"><tr><td>80</td></tr></table> Cyl 4 <table border="1"><tr><td>80</td></tr></table> Cyl 5 <table border="1"><tr><td>80</td></tr></table> Cyl 6 <table border="1"><tr><td>80</td></tr></table>	80	80	80	80	80	80	
80								
80								
80								
80								
80								
80								
<input type="checkbox"/> Drain Oil & Inhibit								

I hereby certify that this engine has been run in accordance with Jabiru requirements and is fit for use.

Signed: _____ Date: _____ for Jabiru Aircraft Pty Ltd